

Chapter Ag 60

CANNED VEGETABLES AND TOMATO PRODUCTS

Ag 60.05	Canned peas; optional ingredients	Ag 60.25	Canned field corn; optional ingredients
Ag 60.06	Canned peas; substandard quality	Ag 60.27	Canned field corn, fritter, ground or cream style; substandard fill
Ag 60.07	Canned peas; substandard fill	Ag 60.30	Canned vegetables; optional ingredients
Ag 60.10	Canned green beans; optional ingredients	Ag 60.70	Tomato juice
Ag 60.11	Canned green beans; substandard quality	Ag 60.75	Yellow tomato juice
Ag 60.15	Canned wax beans; optional ingredients	Ag 60.80	Catsup, ketchup, catchup; optional ingredients
Ag 60.16	Canned wax beans; substandard quality	Ag 60.85	Tomato puree, tomato pulp; optional ingredients
Ag 60.20	Canned corn, sweet and sugar; optional ingredients	Ag 60.90	Tomato paste; optional ingredients
Ag 60.21	Canned corn, sweet and sugar; substandard quality	Ag 60.95	Canned tomatoes; optional ingredients
Ag 60.22	Canned corn, fritter, ground or cream-style; substandard fill	Ag 60.96	Canned tomatoes; substandard quality
		Ag 60.97	Canned tomatoes, fill and substandard fill
		Ag 60.98	Standards of technical organizations

Ag 60.05 Canned peas, optional ingredients. (1) Canned peas is the food prepared from one of the following optional pea ingredients:

(a) Shelled, succulent peas (*Pisum sativum*) of Alaska or other early smooth skin varieties, which may be sorted for size as provided in subsection (6).

(b) Shelled, succulent peas (*Pisum sativum*) of sweet, wrinkled varieties, which may be sorted for size as provided in subsection (6).

(c) Shelled, dried peas (*Pisum sativum*) of Alaska or other early smooth skin varieties.

(d) Shelled, dried peas (*Pisum sativum*) of sweet, wrinkled varieties.

(2) To one such optional pea ingredient water is added.

(3) The following optional ingredients may be used:

- (a) Salt.
- (b) Sugar.
- (c) Dextrose.
- (d) Spice.
- (e) Flavoring.

and in case optional pea ingredient (a) or (b) is used,

(f) Sodium carbonate, sodium bicarbonate, sodium hydroxide, calcium hydroxide, magnesium hydroxide, magnesium oxide, or magnesium carbonate or any mixture or combination of them in such quantity that the pH of the finished canned peas is not more than 8, as determined by the glass electrode method for the hydrogen ion concentration.

(4) The food may be seasoned with one or more of the following optional seasonings:

- (a) Green peppers.
- (b) Mint leaves.
- (c) Onions.
- (d) Garlic.
- (e) Horseradish.

Next page is numbered 107



(5) The food is sealed in a container and so processed by heat as to prevent spoilage.

(6) The size of shelled, succulent peas is determined according to the following table:

(Sorting for size is done before blanching by placing the peas on screens, the size being determined by whether or not the peas remain on or pass through such screens.)

Size	Screen Size in Inches On	Through
1	9/32	9/32
2	9/32	10/32
3	10/32	11/32
4	11/32	12/32
5	12/32	13/32
6	13/32	14/32
7	14/32	

(7) (a) The label shall name the optional pea ingredient present by the use of the word or words "Early" or "June" or "Early June," "Sweet" or "Sweet Wrinkled" or "Sugar," "Dried Early" or "Dried June" or "Dried Early June," "Dried Sweet" or "Dried Sweet Wrinkled" or "Dried Sugar."

(b) When canned peas have not been sorted for size, and no sizes have been removed, the label shall bear the words "Garden Run". When the peas have been sorted for size the label shall bear an appropriate descriptive term to show relative size as follows:

"Small" for sizes 1 and 2, or "Tiny" if only size 1 is present.

"Medium" for sizes 3 and 4.

"Large" for size 5 and larger sizes.

"Mixed Sizes" may be used for any mixture of three or more sizes.

(c) If spice is present, the label shall bear the word or words "Spiced" or "With Added Spice" or "Spice Added."

(d) If flavoring is present, the label shall bear the words "With Added Flavoring" or "Flavoring Added."

(e) If any optional ingredient in (3) (a) (b) or (c) (salt, sugar or dextrose) is used, it shall be named on the label.

(f) If an optional seasoning ingredient is used, the label shall bear the words "Seasoned with Green Peppers," "Seasoned with Mint Leaves," "Seasoned with Onions," "Seasoned with Garlic," or "Seasoned with Horseradish," as the case may be.

(g) If one or more of the optional ingredients named in subsection (3) (f) of this section is used the label shall bear the statement "Traces of _____ Added," the blank to be filled in with the names of the ingredients used; but in lieu of such statement the label may bear the statement "Traces of Alkalis Added."

(8) Wherever the name "Peas" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in subsection (7) shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter, except that this subsection shall not apply to the declaration of size in (7) (b) nor to the optional ingredients in (3) (a) (b) or (c) (salt, sugar or dextrose).

Ag 60.06 Canned peas; substandard quality. (1) The standard of quality for canned peas is as follows:

(a) Not more than 4% by count of the peas in the container are spotted or otherwise discolored;

(b) The combined weight of pea pods and other harmless extraneous vegetable material is not more than one-half of 1% of the drained weight of peas in the container;

(c) The weight of pieces of peas is not more than 10% of the drained weight of peas in the container.

(d) The skins of not more than 25% by count of the peas in the container are ruptured to a width of 1/16 inch or more;

(e) Not less than 90 percent by count of the peas in the container are crushed by a weight of not more than 907.2 grams (2 pounds); and

(f) The alcohol-insoluble solids of Alaska or other smooth skin varieties of peas in the container, is not more than 23.5%, and of sweet, wrinkled varieties, not more than 21%.

(2) Canned peas shall be tested by the following methods to determine whether or not they meet the requirements of subsection (1) of this section:

(a) After determining the fill of the container as prescribed in section Ag 60.07 (1), distribute the contents of the container over the meshes of a circular sieve made with No. 8 woven-wire cloth which complies with the specifications for such cloth set forth on page 3 of "Standard Specifications for Sieves" published October 25, 1938, by U. S. Department of Commerce, National Bureau of Standards. The diameter of the sieve used is 8 inches if the quantity of the contents of the container is less than 3 pounds, or 12 inches if such quantity is 3 pounds or more. Without shifting the peas, so incline the sieve as to facilitate drainage. Two minutes from the time drainage begins, remove the peas from the sieve and weigh them. Such weight shall be considered to be the drained weight of the peas.

(b) From the drained peas obtained in paragraph (a) of this subsection, promptly segregate and weigh the pea pods and other harmless extraneous vegetable material, and the pieces of peas.

(c) From the drained peas obtained in paragraph (a) of this subsection, take at random a subdivision of 100 to 150 peas, and count them. Immediately cover these peas with a portion of the liquid obtained in paragraph (a) of this subsection, and add the remaining liquid to the drained peas from which the subdivision was taken. Count those peas in the subdivision which are spotted or otherwise discolored, and also those peas the skins of which are ruptured to a width of 1/16 inch or more.

(d) Immediately after each pea is examined by the method prescribed in paragraph (c) of this subsection, test it by removing its skin, placing one of its cotyledons, with flat surface down, on the approximate center of the level, smooth surface of a rigid plate, lowering a horizontal disc to the highest point of the cotyledon. The disc is of rigid material and is affixed to a rod held vertically by a support through which the rod can freely move upward or downward. The lower face of the disc is a smooth, plane surface horizontal to the vertical axis of the rod. A device to which weight may be added is affixed to the upper end of the rod. Before lowering the disc to the cotyledon, adjust the combined weight of the disc, rod, and device to 100 grams. After measuring the height of the cotyledon, and shifting the plate, if necessary, so that the cotyledon is under the approximate center of the disc, add weight to the device at a uniform, continuous rate of 12 grams per second until the cotyledon is pressed to one-

fourth its previously measured height, or until the combined weight of disc, rod, and device is 907.2 grams (2 pounds). A pea so tested shall be considered to be crushed when its cotyledon is pressed to one-fourth its original height.

(e) Drain the liquid from the peas which remained after taking the subdivision as prescribed in paragraph (c) of this subsection. Transfer the peas to a pan, and rinse them with a volume of water equal to twice the capacity of the container from which such peas were drained in paragraph (a) of this subsection. Immediately drain the peas again by the method prescribed in paragraph (a) of this subsection. After the 2 minutes' drainage, wipe the moisture from the bottom of the sieve. Comminute the peas thus drained, stir them to a uniform mixture, and weigh 20 grams of such mixture into a 600 cc. beaker. Add 300 cc. of 80 percent alcohol (by volume), stir, cover beaker, and bring to a boil. Simmer slowly for 30 minutes. Fit a Buchner funnel with a previously prepared filter paper of such size that its edges extend $\frac{1}{2}$ inch or more up the vertical sides of the funnel. The previous preparation of the filter paper consists of drying it in a flat-bottomed dish for 2 hours at 100° Centigrade, covering the dish with a tight-fitting cover, cooling it in a desiccator, and promptly weighing. After the filter paper is fitted to the funnel, apply suction and transfer the contents of the beaker to the funnel. Do not allow any of the material to run over the edge of the paper. Wash the material on the filter with 80 percent alcohol (by volume) until the washings are clear and colorless. Transfer the filter paper with the material retained thereon to the dish used in preparing the filter paper. Dry the material in a ventilated oven, without covering the dish, for 2 hours at 100° Centigrade. Place the cover on the dish, cool it in a desiccator, and promptly weigh. From this weight, subtract the weight of the dish, cover, and paper, as previously found. The weight in grams thus obtained, multiplied by 5, shall be considered to be the percent of alcohol-insoluble solids.

(3) If the quality of canned peas falls below the standard prescribed in subsection (1) of this section, the label shall bear the general statement of substandard quality specified in section Ag 50.10 (1), in the manner and form therein specified; but in lieu of such general statement of substandard quality when the quality of canned peas falls below the standard in only one respect, the label may bear the alternative statement "Below Standard in Quality _____," the blank to be filled in with the words specified after the corresponding paragraph number of subsection (1) of this section which such canned peas fail to meet, as follows: (a) "Excessive Discolored Peas;" (b) "Excessive Foreign Material;" (c) "Excessive Broken Peas;" (d) "Excessive Cracked Peas;" (e) "Not Tender;" (f) "Excessively Mealy." Such alternative statement shall immediately and conspicuously precede or follow, without intervening written, printed, or graphic matter, the name "Peas" and any words and statements required or authorized to appear with such name by section 1.05 (7).

Ag 60.07 Canned peas; substandard fill. (1) The standard of fill of container for canned peas is a fill such that, when the peas and liquid are removed from the container and returned thereto, the leveled peas (irrespective of the quantity of the liquid), 15 seconds after they are so returned completely fill the container. A container

with lid attached by double seam shall be considered to be completely filled when it is filled to the level $\frac{3}{16}$ inch vertical distance below the top of the double seam; and a glass container shall be considered to be completely filled when it is filled to the level $\frac{1}{2}$ inch vertical distance below the top of the container.

(2) If canned peas fall below the standard of fill of container prescribed in subsection (1) of this section, the label shall bear the general statement of substandard fill specified in section Ag 50.10 (2), in the manner and form therein specified.

Ag 60.10 Canned green beans; optional ingredients. (1) Canned green beans is the food prepared from stemmed, succulent pods of the green-bean plant, and water. It may be seasoned with salt, sugar, or dextrose, or any two or all of these. The pods are prepared in one or more of the following forms:

(a) Whole pods, including pods which after removal of either or both ends are less than $2\frac{3}{4}$ inches in length, or transversely cut pods not less than $2\frac{3}{4}$ inches in length. There may be present such broken pieces of pods as normally occur in the commercial packing of such product.

(b) Pods sliced lengthwise.

(c) Pods cut transversely into pieces less than $2\frac{3}{4}$ inches in length but not less than $\frac{3}{4}$ inch in length, with or without shorter end pieces resulting therefrom.

(d) Pieces of pods which not less than 75% by count are less than $\frac{3}{4}$ inch in length and not more than 1% by count are more than $1\frac{1}{4}$ inches in length.

Any such form is an optional ingredient. Mixtures of two or more optional ingredients may be used. The food is sealed in a container and so processed by heat as to prevent spoilage.

(2) (a) When optional ingredient specified in subsection (1) (a) of this section is used the label shall bear the word "Whole". If the pods are packed parallel to the sides of the container the word "Whole" shall be preceded or followed by the words "Vertical Pack," except that when the pods are cut at both ends and are of substantially equal lengths, the words "Asparagus Style" may be used in lieu of the words "Vertical Pack."

(b) When optional ingredient specified in subsection (1) (b) of this section is used the label shall bear the words "Sliced Lengthwise" or "French Style."

(c) When optional ingredient specified in subsection (1) (c) of this section is used the label shall bear the word "Cut" or "Cuts."

(d) When optional ingredient specified in subsection (1) (d) of this section is used the label shall bear the words "Short Cut" or "Short Cuts" or "----- Inch Cut" or "----- Inch Cuts," the blank to be filled in with the fraction of an inch which denotes the approximate length of the pieces.

(e) When a mixture of two or more of the optional ingredients specified in subsections (1) (a) to (1) (d), inclusive, of this section is used the label shall bear the statement "Mixture of -----," the blank to be filled in with the combination of the names "Whole," "Sliced Lengthwise," "Cut," or "Cuts," and "Short Cut" or "Short Cuts," designating the optional ingredients present, and arranged in the order of predominance, if any, by weight of such ingredients.

(f) If any optional seasoning ingredient (salt, sugar or dextrose) is used, it shall be named on the label.

(3) Wherever the name "Green Beans" appears on the label so conspicuously as to be easily seen under the customary conditions of purchase, the words and statements prescribed by subsection (2) of this section shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that there may intervene (1) the designation of the length of cut, (2) the varietal name, which may include the word "Stringless", where the beans are in fact stringless, and (3) the description of the green beans as "Stringless," which may also be used between the words "Green" and "Beans," where the beans are in fact stringless. However, the provisions of this section shall not apply to the optional seasoning ingredients: Salt, sugar or dextrose.

Ag 60.11 Canned green beans; substandard quality. (1) The standard of quality of canned green beans is as follows:

When tested by the method prescribed in subsection (2) of this section:

(a) In the case of cut beans (section Ag 50.10 (1) (c)) and mixtures of two or more of the optional ingredients specified in section Ag 50.10 (1) (a) to (1) (d) inclusive, not more than 60 units per 12 ounces drained weight are less than $\frac{1}{2}$ inch long; Provided, that where the number of units per 12 ounces drained weight exceed 240, not more than 25 percent by count of the total units are less than $\frac{1}{2}$ inch long.

(b) The trimmed pods contain not more than 25 percent by weight of seed and pieces of seed.

(c) In case there are present pods or pieces of pods $\frac{27}{64}$ inch or more in diameter, there are not more than 12 strings per 12 ounces of drained weight which will support $\frac{1}{2}$ pounds for 5 seconds or longer.

(d) The deseeded pods contain not more than 0.15 percent by weight of fibrous material.

(e) There are not more than 8 percent by count of blemished units. A unit is considered blemished when the aggregate blemished area exceeds the area of a circle $\frac{1}{8}$ inch in diameter.

(f) There are not more than 6 unstemmed units per 12 ounces of drained weight.

(g) The combined weight of loose seed and pieces of seed is not more than 5 percent of the drained weight. This provision does not apply in case the green-bean ingredient is pods sliced lengthwise (section Ag 60.10 (1) (b)).

(h) The combined weight of leaves, detached stems, and other extraneous vegetable matter is not more than 0.6 ounce per 60 ounces drained weight.

(2) Canned green beans shall be tested by the following method to determine whether they meet the requirements of subsection (1) of this section:

(a) Distribute the contents of the container over the meshes of a circular sieve which has been previously weighed. The diameter of the sieve is 8 inches if the quantity of the contents of the container is less than 3 pounds, and 12 inches if such quantity is 3 pounds or more. The bottom of the sieve is woven-wire cloth which complies with the

specifications for such cloth set forth under "2380 Micron (No. 8)" in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L. C. 584 of the U. S. Department of Commerce, National Bureau of Standards. Without shifting the material on the sieve, so incline the sieve as to facilitate drainage. Two minutes from the time drainage begins, weigh the sieve and the drained material. Record, in ounces, the weight so found, less the weight of the sieve, as the drained weight.

(b) Pour the drained material from the sieve into a flat tray and spread it in a layer of fairly uniform thickness. Count the total number of units. For the purpose of this count, loose seed, pieces of seed, loose stems, and extraneous material are not to be included. Divide the number of units by the drained weight recorded in paragraph (a) of this subsection and multiply by 12 to obtain the number of units per 12 ounces drained weight.

(c) Examine the drained material in the tray, counting and recording the number of blemished units, number of unstemmed units, and, in case the material consists of the optional ingredient specified in paragraph (c) of subsection (1) of this section or a mixture of two or more of the optional ingredients specified in section Ag 60.10 (1) (a) to (d), inclusive, count and record the number of units which are less than $\frac{1}{2}$ inch long. If the number of units per 12 ounces is 240 or less, divide the number of units which are less than $\frac{1}{2}$ inch long by the drained weight recorded in paragraph (a) of this subsection and multiply by 12 to obtain the number of such units per 12 ounces drained weight. If the number of units per 12 ounces exceeds 240, divide the number of units less than $\frac{1}{2}$ inch long by the total number of units and multiply by 100 to determine the percentage by count of the total units which are less than $\frac{1}{2}$ inch long.

Divide the number of blemished units by the total number of units in the container and multiply by 100 to obtain the percentage by count of blemished units in the container.

Divide the number of unstemmed units by the drained weight recorded in paragraph (a) of this subsection and multiply by 12 to obtain the number of unstemmed units per 12 ounces of drained weight.

(d) Except in the case of pods sliced lengthwise, remove the loose seed and pieces of seed, weigh and record weight and return to tray. Divide the weight of loose seed and pieces of seed by the drained weight recorded in paragraph (a) of this subsection and multiply by 100 to obtain the percentage by weight of loose seed and pieces of seed in the drained material.

(e) Remove from the tray the extraneous vegetable material, weigh, record weight, and return to tray.

(f) Remove from the tray one or more representative samples of $3\frac{1}{2}$ to 4 ounces, covering each sample as taken to prevent evaporation. If the tray includes pods or pieces of pods $27/64$ inch or more in diameter, weigh and record weight in ounces of each representative sample.

(g) From each representative sample selected in paragraph (f) of this subsection discard any loose seed and extraneous vegetable material and detach and discard any attached stems. Except with optional ingredient specified in section Ag 60.10 (1) (b), (pods sliced lengthwise), trim off, as far as the end of the space formerly occupied by the seed, any portion of pods from which seed have become separated.

Remove and discard any portions of seed from the trimmings and reserve the trimmings for paragraph (j) of this subsection. Weigh and record the weight of the trimmed pods. Deseed the trimmed pods and reserve the deseeded pods for paragraph (j) of this subsection. If the original container contained pods $\frac{27}{64}$ inch or more in diameter, remove strings from the pods during the deseeding operation. Reserve these strings for testing as prescribed in paragraph (h) of this subsection. Collect the seed on a sieve of mesh fine enough to retain them, and so distribute them that any liquid drains away. Weigh the seed, divide by the weight of the trimmed pods, and multiply by 100 to obtain the percentage by weight of seed in the trimmed pods.

In the case of pods sliced lengthwise remove seed and pieces of seed and reserve the deseeded pods for use as prescribed in paragraph (j) of this subsection.

(h) If strings have been removed for testing, as prescribed in paragraph (g) of this subsection, test them as follows:

Fasten clamp, weighted to $\frac{1}{2}$ pound, to one end of the string, grasp the other end with the fingers (a cloth may be used to aid in holding the string), and lift gently. Count the string as tough if it supports the $\frac{1}{2}$ pound weight for at least 5 seconds. If the string breaks before 5 seconds, test such parts into which it breaks as are $\frac{1}{2}$ inch or more in length, and if any such part of the string supports the $\frac{1}{2}$ -pound weight for at least 5 seconds count the string as tough. Divide the number of tough strings by the weight of the sample recorded in paragraph (f) of this subsection and multiply by 12 to obtain the number of tough strings per 12 ounces drained weight.

(j) Combine the deseeded pods with the trimmings reserved in paragraph (g) of this subsection, and, if strings were tested as prescribed in paragraph (h) of this subsection, add such strings, broken or unbroken. Weigh and record weight of combined material. Transfer to the metal cup of a malted-milk stirrer and mash with a pestle. Wash material adhering to the pestle back into cup with 200 cc. of boiling water. Bring mixture nearly to a boil, add 25 cc. of 50% (by weight) sodium hydroxide solution and bring to a boil. (If foaming is excessive, 1 cc. of capryl alcohol may be added.) Boil for 5 minutes, then stir for 5 minutes with a malted-milk stirrer capable of a no-load speed of at least 7200 r.p.m. Use a rotor with two scalloped buttons, the buttons being located on the rotor approximately one inch apart and the lower button being at the base of the rotor. Each of the buttons shall have a diameter of approximately one inch.

Transfer the material from the cup to a previously weighed 30-mesh monel metal screen having a diameter of about $3\frac{1}{2}$ to 4 inches and side walls about 1 inch high, and wash fiber on the screen with a stream of water using a pressure not exceeding a head (vertical distance between upper level of water and outlet of glass tube) of 60 inches, delivered through a glass tube 3 inches long and $\frac{1}{8}$ inch inside diameter inserted into a rubber tube of $\frac{1}{4}$ inch inside diameter. Wash the pulpy portion of the material through the screen and continue washing until the remaining fibrous material, moistened with phenolphthalein solution, does not show any red color after standing 5 minutes. Again wash to remove phenolphthalein. Dry the screen containing the fibrous material for 2 hours at 100° C., cool, weigh, and deduct weight of screen. Divide the weight of fibrous material by the weight

of combined deseeded pods, trimmings, and strings and multiply by 100 to obtain the percentage of fibrous material.

(k) If the drained weight recorded in paragraph (a) of this subsection was less than 60 ounces, open and examine separately for extraneous material, as directed in paragraph (e) of this subsection, additional containers until a total of not less than 60 ounces of drained material is obtained. To determine the combined weight of extraneous vegetable material per 60 ounces of drained weight, total the weights of extraneous vegetable material found in all containers opened, divide this sum by the sum of the drained weights in these containers and multiply by 60.

(3) If the quality of the canned green beans falls below the standard of quality prescribed by subsection (1) of this section, the label shall bear the general statement of substandard quality specified in section Ag 50.10 (1) in the manner and form therein specified, but in lieu of the words prescribed for the second line inside the rectangle the following words may be used, when the quality of canned green beans falls below the standard in one only of the following respects:

(a) "Excessive Number Very Short Pieces," if the canned green beans fail to meet the requirements of subsection (1) (a) of this section.

(b) "Excessive Number Blemished Units," if they fail to meet the requirements of subsection (1) (e) of this section.

(c) "Excessive Number Unstemmed Units," if they fail to meet the requirements of subsection (1) (f) of this section.

(d) "Excessive Foreign Material," if they fail to meet the requirements of subsection (1) (h) of this section.

Ag 60.15 Canned wax beans; optional ingredients. (1) Canned wax beans conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients prescribed for canned green beans by Ag 60.10 (1) and (2), except that it is prepared from stemmed, succulent pods of the wax-bean plant.

(2) Wherever the name "Wax Beans" appears on the label so conspicuously as to be easily seen under the customary conditions of purchase, the words and statements prescribed by subsection (1) of this section shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that there may intervene (1) the designation of the length of cut, (2) the varietal name, which may include the word "Stringless" where the beans are in fact stringless, and (3) the description of the wax beans as "Stringless," which may also be used between the words "Wax" and "Beans", where the beans are in fact stringless. However, the provisions of this section shall not apply to the optional seasoning ingredients: Salt, sugar or dextrose.

Ag 60.16 Canned wax beans; substandard quality. (1) The standard of quality for canned wax beans is that prescribed for canned green beans by section Ag 60.11 (1) and (2).

(2) If the quality of canned wax beans falls below the standard of quality prescribed by subsection (1) of this section the label shall bear the statement of substandard quality in the manner and form specified in section Ag 60.11 (3) for canned green beans.

Ag 60.20 Canned corn, sweet and sugar; optional ingredients. (1) Canned corn, canned sweet corn, canned sugar corn is the food consisting of one of the corn ingredients specified in subsection (2) of this section, with water necessary for proper preparation and processing. It may be seasoned or garnished with one or more of the following optional ingredients:

- (a) Salt
- (b) Sugar (sucrose)
- (c) Pieces of sweet red peppers or sweet green peppers or hot red peppers or hot green peppers or a mixture of any two or more of these.

It is sealed in a container and so processed by heat as to prevent spoilage.

(2) The corn ingredients referred to in subsection (1) of this section consist of succulent sweet corn of the white or yellow color groups, or mixtures of these, and are as follows:

- (a) Cut kernels from which the hulls have not been separated.
- (b) Pieces of the inner portion of the corn kernel substantially free from hull.

(c) Ground kernels from which the hulls have not been separated.

(d) A mixture of the form described in paragraph (a) of this subsection with one or both of the forms described in paragraphs (b) and (c) of this subsection. When necessary to insure smoothness, starch may be added, in a quantity not more than sufficient for that purpose.

(e) Cut and cooked kernels from which most of the moisture has been evaporated.

In preparing each of the foregoing corn ingredients, the tip caps are removed.

(3) (a) The name of the food is "Corn" or "Sweet Corn" or "Sugar Corn" with the name of the color group used, "White," "Yellow," or "Golden," or with the names of the color groups used, "White and Yellow" or "White and Golden," when the white color group predominates, and "Yellow and White" or "Golden and White," when the yellow color group predominates, and with:

1. The words "Whole Kernel" or "Whole Grain," when the corn ingredient specified in subsection (2) (a) of this section is used. When the weight of the liquid in the container, as determined by the method prescribed in section Ag 60.21 (2) (a), is not more than 20% of the net weight, and the container is closed under conditions creating a high vacuum in the container, the words "Vacuum Pack" or "Vacuum Packed" also are part of the name.

2. The word "Fritter," when the corn ingredient specified in subsection (2) (b) of this section is used.

3. The word "Ground," when the corn ingredient specified in subsection (2) (c) of this section is used.

4. The words "Cream Style," when the corn ingredient specified in subsection (2) (d) of this section is used.

5. The word "Evaporated," when the corn ingredient specified in subsection (2) (e) of this section is used.

(b) The parts of the name as specified in paragraph (a) of this subsection may be arranged in any order of precedence. The varietal name of the corn used may intervene between parts of the name of the food. For the purpose of arrangement of the name, the words

"Sweet" and "Corn" may be treated as separate parts of the name. When the varietal name immediately precedes or follows the name or intervenes between parts of the name of the food and it accurately designates the color of the corn ingredient, no other designation of the color group need be made.

(4) (a) If either of the optional ingredients salt or sugar is used, it shall be named on the label.

(b) When the optional seasoning or garnishing ingredient specified in subsection (1) (c) of this section is used, the label shall bear the words "With _____ peppers," the blanks being filled in with the words "red" or "green" or both, to show the kind of peppers used, as for example, "With green sweet peppers" or "With hot red peppers."

(c) When the optional starch ingredient specified in subsection (2) (d) of this section is used, the label shall bear the statement "Starch added to insure smoothness."

(5) Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements prescribed by subsection (4) of this section shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the corn used may so intervene. However, this section shall not apply to the optional ingredients salt or sugar.

Ag 60.21 Canned corn, sweet and sugar corn, substandard quality.

(1) The standard of quality for canned corn is as follows:

(a) When tested by the method prescribed in subsection (2) of this section, canned corn in which the corn ingredient is whole-kernel corn (section Ag 60.20 (2) (a)) or evaporated corn (section Ag 60.20 (2) (e)):

1. Contains not more than one brown or black discolored kernel or piece of kernel for each 2 ounces of drained weight:

2. Contains not more than 1 cubic centimeter of pieces of cob for each 14 ounces of drained weight:

3. Contains not more than 1 square inch of husk for each 14 ounces of drained weight: and

4. Contains not more than 7 inches of silk for each 1 ounce of drained weight.

(b) When tested by the method prescribed in subsection (3) of this section, canned corn in which the corn ingredient is fritter corn (section Ag 60.20 (2) (b)), ground corn (section Ag 60.20 (2) (c)), or cream-style corn (section Ag 60.20 (2) (d)):

1. Contains not more than one brown or black discolored kernel or piece of kernel for each 2 ounces of net weight;

2. Contains not more than 1 cubic centimeter of pieces of cob for each 20 ounces of net weight;

3. Contains not more than 1 square inch of husk for each 20 ounces of net weight;

4. Contains not more than 6 inches of silk for each 1 ounce of net weight; and

5. Has a consistency such that the average diameter of the approximately circular area over which the prescribed sample spreads does not exceed 12 inches, except that, in the case of cream-style corn the washed drained material of which contains more than 20 percent of

alcohol-insoluble solids, the average diameter of the approximately circular area over which the prescribed sample spreads does not exceed 10 inches.

(c) 1. The weight of the alcohol-insoluble solids of whole-kernel corn (section Ag 60.20 (2) (a)) does not exceed 27% of the drained weight, when tested by the method prescribed in subsection (2) of this section.

2. The weight of the alcohol-insoluble solids of the washed drained material of cream-style corn (section Ag 60.20 (2) (d)) does not exceed 27 percent of the weight of such material, when tested by the method prescribed in subsection (3) of this section.

(2) The method referred to in subsection (1) of this section for testing whole-kernel corn (section Ag 60.20 (2) (a)) and evaporated corn (section Ag 60.20 (2) (e)) is as follows:

(a) Determine the gross weight of the container. Open and distribute the contents of the container over the meshes of an 8-mesh circular sieve which has previously been weighed. The diameter of the sieve is 8 inches if the quantity of the contents of the container is less than 3 pounds, and 12 inches if such quantity is 3 pounds or more. The bottom of the sieve is woven-wire cloth which complies with the specifications for such cloth set forth under "2380 Micron (No. 8)" in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the U. S. Department of Commerce, National Bureau of Standards. Without shifting the material on the sieve, so incline the sieve as to facilitate drainage. Two minutes from the time drainage begins, weigh the sieve and the drained material. Record, in ounces, the weight so found, less the weight of the sieve as the drained weight. Dry and weigh the empty container and subtract this weight from the gross weight to obtain the net weight. Calculate the percent of drained liquid in the net weight.

(b) Pour the drained material from the sieve into a flat tray and spread it in a layer of fairly uniform thickness. Count, but do not remove, the brown or black discolored kernels or pieces of kernel and calculate the number per 2 ounces of drained material. Remove pieces of silk more than $\frac{1}{2}$ -inch long, husk, cob, and any pieces or material other than corn. Measure the aggregate length of such pieces of silk and calculate the length of silk per 1 ounce of drained weight. Spread the husk flat, measure its aggregate area, and calculate the area of husk per 14 ounces of drained weight. Place all pieces of cob under a measured amount of water in cylinder which is so graduated that the volume can be measured to 0.1 cubic centimeter. Take the increase in volume as the aggregate volume of the cob and calculate the volume of cob per 14 ounces of drained weight.

(c) If the corn is whole kernel (section Ag 60.20 (2) (a)), comminute a representative 100-gram sample of the drained corn from which the silk, husk, cob, and other material which is not corn (i.e., peppers) have been removed. An equal amount of water is used to facilitate this operation. Weigh to nearest 0.01 gram a portion of the comminuted material equivalent to approximately 10 grams of the drained corn into a 600-cubic centimeter beaker. Add 300 cubic centimeters of 80-percent alcohol (by volume), stir, cover beaker, and bring to a boil. Simmer slowly for 30 minutes. Fit a Buchner funnel with a previously prepared filter paper of such size that its edges extend $\frac{1}{2}$ inch or more up the vertical sides of the funnel. The

previous preparation of the filter paper consists of drying it in a flat-bottomed dish for 2 hours at 100° C., covering the dish with a tight-fitting cover, cooling it in a desiccator, and promptly weighing to the nearest 0.001 gram. After the filter paper is fitted to the funnel, apply suction and transfer the contents of the beaker to the funnel. Do not allow any of the material to run over the edge of the paper. Wash the material on the filter with 80-percent alcohol (by volume) until the washings are clear and colorless. Transfer the filter paper with the material retained thereon to the dish used in preparing the filter paper. Dry the material in a ventilated oven, without covering the dish, for 2 hours at 100° C. Place the cover on the dish, cool it in a desiccator, and promptly weigh to the nearest 0.001 gram. From this weight subtract the weight of the dish, cover, and paper as previously found. Calculate the remainder to percentage.

(3) The method referred to in subsection (1) of this section for testing fritter corn (section Ag 60.20 (2) (b)), ground corn (section Ag 60.20 (2) (c)), and cream-style corn (section Ag 60.20 (2) (d)) is as follows:

(a) Allow the container to stand at least 24 hours at a temperature of 68° F. to 85° F. Determine the gross weight, open, transfer the contents to a pan, and mix thoroughly in such a manner as not to incorporate air bubbles. (If the net contents of a single container is less than 18 ounces, determine the gross weight, open, and mix the contents of the least number of containers necessary to obtain 18 ounces. (Fill level full a hollow, truncated cone so placed on a polished horizontal plate as to prevent leakage. The cone has an inside bottom diameter of 2 inches, and height of 4-27/32 inches. As soon as the cone is filled, lift it vertically. Determine the average of the longest and shortest diameters of the approximately circular area on the plate covered by the sample 30 seconds after lifting the cone. Dry and weigh each empty container and subtract the weight so found from the gross weight to obtain the net weight.

(b) Transfer the material from the plate, cone, and pan onto an 8-mesh sieve as prescribed in subsection (2) (a) of this section. The diameter of the sieve is 8 inches if the quantity of the contents of the container is less than 3 pounds, and 12 inches if such quantity is 3 pounds or more. Set the sieve in a pan. Add enough water to bring the level within $\frac{3}{8}$ inch to $\frac{1}{4}$ inch of the top of the sieve. Gently wash the material on the sieve by combined up-and-down and circular motion for 30 seconds. Repeat washing with a second portion of water. Remove sieve from pan, incline to facilitate drainage, and drain for 2 minutes.

(c) From the material remaining on the 8-mesh sieve, count, but do not remove, the brown or black discolored kernels or pieces of kernel and calculate the number per 2 ounces of net weight. Remove pieces of silk more than $\frac{1}{2}$ -inch long, husk, cob, and other material which is not corn (i.e., peppers). Measure aggregate length of such pieces of silk and calculate the length per ounce of net weight. Spread the husk flat and measure its aggregate area and calculate the area per 20 ounces of net weight. Place all pieces of cob under a measured amount of water in a cylinder which is so graduated that the volume may be measured to 0.1 cubic centimeter. Take the increase in volume as the aggregate volume of the cob and calculate the volume of cob per 20 ounces of net weight. If the corn is cream-style corn (section

Ag 60.20 (2) (d)), take a representative 100-gram sample of the material remaining on the 8-mesh sieve (if such material weighs less than 100 grams take all of it) and determine the alcohol-insoluble solids as prescribed in subsection (2) (c) of this section for whole-kernel corn.

(4) If the quality of canned corn falls below the standard prescribed in subsection (1) of this section, the label shall bear the general statement of substandard quality specified in section Ag 50.10 (1) of these regulations, in the manner and form therein specified; however, if the quality of the canned corn falls below standard with respect to only one of the factors of quality specified by subparagraphs 1 to 4 of subsection (1) (a) of this section, or by subparagraphs 1 to 5 of subsection (1) (b) of this section, there may be substituted for the second line of such general statement of substandard quality, "Good Food—Not High Grade," a new line as specified after the corresponding subparagraph designation of subsection (1) of this section which the canned corn fails to meet:

- (a) 1 or (b) 1 "Excessive discolored kernels."
- (a) 2 or (b) 2 "Excessive cob."
- (a) 3 or (b) 3 "Excessive husk."
- (a) 4 or (b) 4 "Excessive silk."
- (b) 5 "Excessively liquid."

Ag 60.22 Canned corn, fritter, ground or cream-style; substandard fill. (1) The standard of fill of container for canned corn where the corn ingredient is in one of the forms known as fritter corn (section Ag 60.20 (2) (b)), ground corn (section Ag 60.20 (2) (c)), or cream-style corn (section Ag 60.20 (2) (d)), is a fill of not less than 90 percent of the total capacity of the container, as determined by the general method for fill of containers prescribed in section Ag 50.05 (2).

(2) If canned fritter corn, canned ground corn, or canned cream-style corn falls below the standard of fill of container prescribed in subsection (1) of this section, the label shall bear the general statement of substandard fill specified in section Ag 50.10 (2) of these regulations, in the manner and form therein specified.

Ag 60.25 Canned field corn; optional ingredients. (1) Canned field corn conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for canned corn by section Ag 60.20, except that the corn ingredient consists of succulent field corn or a mixture of succulent field corn and succulent sweet corn.

(2) The name of the food conforms to the name specified in section Ag 60.20 (3) except that the words "Corn," "Sweet Corn," and "Sugar Corn" are replaced by the words "Field Corn," and the term "Golden Field Corn" is not used.

Ag 60.27 Canned field corn, fritter, ground or cream-style; substandard fill. Each of the foods canned fritter field corn, canned ground field corn, and canned cream-style field corn conforms to the standard of fill of container and label statement of substandard fill prescribed for canned fritter corn, canned ground corn, and canned cream-style corn by section Ag 60.22 (1) and (2).

Ag 60.30 Canned vegetables; optional ingredients. (1) The canned vegetables for which definitions and standards of identity are prescribed by this section are those named in column I of the table set forth in subsection (2) of this section. The vegetable ingredient in each such canned vegetable is obtained by proper preparation from the succulent vegetable prescribed in column II of such table. If two or more forms of such ingredient are designated in column III of such table, the vegetable in each such form is an optional ingredient.

(2) The table referred to in subsection (1) of this section is as follows:

I Name or synonym of canned vegetable	II Source	III Optional forms of vegetable ingredient
Artichokes	Flower buds of the artichoke plant.	Whole; half or halves or halved; whole hearts; halved hearts; quartered hearts.
Asparagus	Edible portions of sprouts of the asparagus plant, as follows: Three and three-quarter inches or more of upper end. Three and three-quarter inches or more of peeled upper end.	Stalks or spears. Peeled stalks or peeled spears.
Bean Sprouts	Not less than two and three-quarter inches but less than three and three-quarter inches of upper end.	Tips.
Shelled beans	Less than two and three-quarter inches of upper end. Sprouts cut in pieces. Sprouts from which the tip has been removed, cut in pieces. Sprouts of the Mung bean.	Points.
Lima beans or butter beans	Seed shelled from green or wax bean pods, with or without snaps (pieces of immature unshelled pods).	Cut stalks or cut spears. Bottom cuts or cuts — tips removed.
Beets	Seed shelled from the pods of the lima bean plant. Root of the beet plant.	Whole; slices or sliced; quarters or quartered; dice or diced; cut; shoe string or French style or julienne.
Beet greens	Leaves, or leaves and immature root, of the beet plant.	
Broccoli	Heads of the broccoli plant.	
Brussels sprouts	Sprouts of the brussels sprouts plant.	
Cabbage	Cut pieces of heads of the cabbage plant.	
Carrots	Root of the carrot plant.	Do.
Cauliflower	Cut pieces of the head of the cauliflower plant.	
Celery	Stalks of the celery plant.	Cut; hearts.
Collards	Leaves of the collard plant.	
Dandelion greens	Leaves of the dandelion plant.	
Kale	Leaves of the kale plant.	
Mushrooms	Cap and stem of mushrooms.	
Mustard greens	Leaves of the mustard plant.	Buttons; whole; slices or sliced; pieces and stems.
Okra	Pods of the okra plant.	Whole; cut.
Onions	Bulb of the onion plant.	Do.
Parsnips	Root of the parsnip plant.	Whole; quarters or quartered; slices or sliced; cut; shoe string or French style or julienne.
Black-eye peas or black-eyed peas	Seed shelled from pods of the black-eyed pea plant, with or without snaps (pieces of immature unshelled pods).	

I Name or synonym of canned vegetable	II Source	III Optional forms of vege- table ingredient
Field peas.....	Seed shelled from pods of the field pea plant (other than the black-eye pea plant), with or without snaps (pieces of immature unshelled pods).	Whole; halves or halved; pieces.
Green sweet peppers.....	Green pods of the sweet pepper plant.	Whole; halves or halved; pieces.
Red sweet peppers.....	Red-ripe pods of the sweet pepper plant.	Do.
Pimientos or pimento.....	Red-ripe pods of the pimiento, or pimento, pepper plant.	Do.
Potatoes.....	Tuber of the potato plant.	Whole; slices or sliced; dice or diced; pieces; shoestring or French style or julienne.
Sweet potatoes.....	Tuber of the sweet potato plant.	Whole; pieces; mashed.
Rutabagas.....	Root of the rutabaga plant.	Whole; quarters or quartered; slices or sliced; dice or diced; cut.
Salsify.....	Root of the salsify plant.	
Spinach.....	Leaves of the spinach plant.	
Swiss chard.....	Leaves of the Swiss chard plant.	
Truffles.....	Fruit of the truffle.	
Turnip greens.....	Leaves of the turnip plant.	
Turnips.....	Root of the turnip plant.	Whole; quarters or quartered; slices or sliced; dice or diced; cut.

(3) To the vegetable ingredient water is added; except that pimientos may be canned with or without added water, and sweet potatoes in mashed form are canned without added water, and asparagus may be canned with added water, asparagus juice, or a mixture of both. For the purpose of this section asparagus juice is the clear, unfermented liquid expressed from the washed and heated sprouts or parts of sprouts of the asparagus plant; mixtures of asparagus juice and water are considered to be water when such mixtures are used as a packing medium for canned asparagus. In the case of artichokes, citric acid or a vinegar is added in such quantity as to reduce the pH of the finished canned vegetable to 4.5 or below. The following optional ingredients, in the cases of the vegetables specified, may be added:

(a) Citric acid or a vinegar, in the cases of all vegetables (except artichokes in which such ingredient is necessary) in a quantity not more than sufficient to permit effective processing by heat without discoloration or other impairment of the article.

(b) An edible vegetable oil, in the cases of artichokes and pimientos.

(c) In the case of potatoes, purified calcium chloride, calcium sulfate, calcium citrate, monocalcium phosphate, or any mixture of two or more such calcium salts, in a quantity reasonably necessary to firm the potatoes, but in no case in a quantity such that the calcium contained in any such calcium salt or mixture is more than 0.051% of the weight of the finished food.

(d) Snaps, in the cases of shelled beans, black-eye peas, and field peas.

In the cases of all vegetables one or more of the following optional seasoning ingredients may be added in quantity sufficient to season the food:

(e) Salt.

(f) A vinegar.

- (g) Spice.
- (h) Refined sugar (sucrose).
- (j) Refined corn sugar (dextrose).

The food is sealed in a container and so processed by heat as to prevent spoilage.

(4) The name of each canned vegetable for which a definition and standard of identity is prescribed by this section is the name or any synonym thereof whereby such vegetable is designated in Column I of the table in subsection (2) of this section.

(5) If two or more forms of the vegetable are specified in Column III of the table in subsection (2) of this section, the label shall bear the specified word or words, or in case synonyms are so specified, one of such synonyms, showing the form of the vegetable ingredient present.

(6) (a) If the optional ingredient specified in subsection (3) (b) of this section is present, the label shall bear the statement "----- Oil Added" or "With Added ----- Oil," the blank being filled in with the common or usual name of the oil. If the optional ingredient specified in subsection (3) (c) of this section is present, the label shall bear the statement "Trace of ----- Added" or "With Added Trace of -----," the blank being filled in with the words "Calcium Salt" or "Calcium Salts," as the case may be, or with the name or names of the particular calcium salt or salts added. If the optional ingredient specified in subsection (3) (d) of this section is present, the label shall bear the statement "With Snaps."

(b) If optional seasoning ingredient (3) (f) is present, the label shall bear the statement "Seasoned with Vinegar" or "Seasoned with ----- Vinegar" (the blank to be filled in with the common or usual name of the vinegar). If optional seasoning ingredient (3) (g) is present, the label shall bear the statement "Spice Added" or "With Added Spice."

(c) If a vinegar, spice, and edible vegetable oil, or any two of these are present, the label may bear, in lieu of the statements herein prescribed showing the presence of such ingredients, a combination of such statements, as for example, "With Added Cider Vinegar, Spice, and Olive Oil."

(d) If asparagus juice is used as a packing medium in canned asparagus, the label shall bear the statement "Packed in Asparagus Juice."

(e) If any optional seasoning ingredient specified in (3) (e), (h) or (j) (salt, sucrose or dextrose) is present, it shall be named on the label.

(7) Wherever the name of the vegetable appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in subsections (5) and (6) of this section shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the vegetable may so intervene. However, the provisions of this subsection shall not apply to the optional ingredients: Salt, sugar or dextrose.

Ag 60.70 Tomato juice. (1) Tomato juice is the unconcentrated liquid extracted from mature tomatoes of red or reddish varieties, with or without scalding followed by draining. In the extraction of

such liquid, heat may be applied by any method which does not add water thereto. Such liquid is strained free from skins, seeds, and other coarse or hard substances, but carries finely divided insoluble solids from the flesh of the tomato. Such liquid may be homogenized, and may be seasoned with salt. When sealed in a container it is so processed by heat, before or after sealing, as to prevent spoilage.

(2) If salt is used the food shall be labelled to show the presence of such optional seasoning ingredient.

Ag 60.75 Yellow tomato juice. Yellow tomato juice is the unconcentrated liquid extracted from mature tomatoes of yellow varieties. It conforms, in all other respects, to the definition and standard of identity for tomato juice prescribed in section Ag 60.70 and is subject to the labelling requirements therein.

Ag 60.80 Catsup, ketchup, catchup; optional ingredients. (1) Catsup, ketchup, catchup is the food prepared from one or more of the following optional ingredients:

(a) The liquid obtained from mature tomatoes of red or reddish varieties.

(b) The liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof.

(c) The liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is obtained by so straining such tomatoes or residue, with or without heating, as to exclude skins, seeds, and other coarse or hard substances. It is concentrated, and is seasoned with sugar or a mixture of sugar and dextrose (refined corn sugar), salt, a vinegar or vinegars, spices or flavoring or both, and onions or garlic or both. When sealed in a container it is so processed by heat, before or after sealing, as to prevent spoilage.

(2) When optional ingredient specified in subsection (1) (b) of this section is present, in whole or in part, the label shall bear the statement "Made From _____" (or "Made in Part From _____," as the case may be) "Residual Tomato Material from Canning." When optional ingredients specified in subsection (1) (c) of this section is present, in whole or in part, the label shall bear the statement "Made From _____" (or "Made in Part from _____," as the case may be) "Residual Tomato Material from Partial Extraction of Juice." If both such ingredients are present, such statements may be combined in the statement "Made From _____" (Or "Made in Part From _____," as the case may be) "Residual Tomato Material from Canning and from Partial Extraction of Juice." Wherever the name "Catsup," "Ketchup" or "Catchup" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statement or statements specified in this paragraph showing the optional ingredients present shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter.

Ag 60.85 Tomato puree, tomato pulp; optional ingredients. (1) Tomato puree, tomato pulp, is the food prepared from one or more of the following optional ingredients:

(a) The liquid obtained from mature tomatoes of red or reddish varieties.

(b) The liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof.

(c) The liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is obtained by so straining such tomatoes or residue, with or without heating, as to exclude skins, seeds, and other coarse or hard substances. It is concentrated, and may be seasoned with salt. When sealed in a container it is so processed by heat, before or after sealing, as to prevent spoilage. It contains not less than 8.37%, but less than 25.00%, of salt-free tomato solids, as determined by the following method:

Determine total solids by the method prescribed on page 570 under "Total Solids—Official", and sodium chloride by the method prescribed on page 571 under "Sodium Chloride—Official," of "Official Methods of Analysis of the Association of Official Agricultural Chemists," 8th edition, 1955. Subtract the percent of sodium chloride found from the percent of total solids found; the difference shall be considered to be the percent of salt-free tomato solids.

(2) (a) When optional ingredient specified in subsection (1) (b) of this section is present, in whole or in part, the label shall bear the statement "Made from _____" (or "Made in Part From _____," as the case may be) "Residual Tomato Material from Canning."

(b) When optional ingredient specified in subsection (1) (c) of this section is present, in whole or in part, the label shall bear the statement "Made From _____" (or "Made in Part From _____," as the case may be) "Residual Tomato Material from Partial Extraction of Juice." If both such ingredients are present, such statements may be combined in the statement "Made from _____" (or "Made in Part From _____," as the case may be) "Residual Tomato Material from Canning and from Partial Extraction of Juice."

(c) If the optional ingredient salt is present, it shall be named on the label.

(3) Wherever the name "Tomato Puree" or "Tomato Pulp" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statement or statements herein specified showing the optional ingredients present shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that this shall not apply to the optional ingredient salt.

Ag 60.90 Tomato paste; optional ingredients. (1) Tomato paste is the food prepared from one or more of the following optional ingredients:

(a) The liquid obtained from mature tomatoes of red or reddish varieties.

(b) The liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof.

(c) The liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is obtained by so straining such tomatoes or residue, with or without heating, as to exclude skins, seeds, and other coarse or

hard substances. It is concentrated, and may be seasoned with one or more of the optional ingredients:

- (d) Salt.
- (e) Spice.
- (f) Flavoring.

It may contain, in such quantity as neutralize a part of the tomato acids, the optional ingredient:

- (g) Baking soda.

When sealed in a container it is so processed by heat, before or after sealing, as to prevent spoilage. It contains not less than 25.00 percent of salt-free tomato solids, as determined by the following method:

Determine total solids by the method prescribed on page 570 under "Total Solids—Official", and sodium chloride by the method prescribed on page 571 under "Sodium Chloride—Official", of "Official Methods of Analysis of the Association of Official Agricultural Chemists," 8th edition, 1955. Subtract the percent of sodium chloride found from the percent of total solids found; the difference shall be considered to be the percent of salt-free tomato solids.

(2) (a) When optional ingredient specified in subsection (1) (b) of this section is present, in whole or in part, the label shall bear the statement "Made From _____" (or "Made in Part From _____," as the case may be) "Residual Tomato Material From Canning." When optional ingredient specified in subsection (1) (c) of this section is present, in whole or in part, the label shall bear the statement "Made From _____" (or "Made in Part From _____," as the case may be) "Residual Tomato Material from Partial Extraction of Juice." If both such ingredients are present, such statement may be combined in the statement "Made From _____" (or "Made in Part From _____," as the case may be) "Residual Tomato Material from Canning and from Partial Extraction of Juice."

(b) When optional ingredient specified in subsection (1) (e) or (f) of this section is present the label shall bear the statement or statements, "Spice Added" or "With Added Spice," "Flavoring Added" or "With Added Flavoring," as the case may be. When optional ingredient specified in subsection (1) (g) of this section is present, the label shall bear the statement "Baking Soda Added." If two or all of the optional ingredients specified in subsection (1) (e), (f) and (g) of this section are present, such statements may be combined, as for example, "Spice, Flavoring, and Baking Soda Added." In lieu of the word "Spice" or "Flavoring" in such statement or statements, the common or usual name of such spice or flavoring may be used.

(c) When the optional ingredient salt is present it shall be named on the label.

(3) Wherever the name "Tomato Paste" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statement or statements herein specified showing the optional ingredients present shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that this requirement shall not apply to the optional ingredient salt.

Ag 60.95 Canned tomatoes; optional ingredients. (1) Canned tomatoes are mature tomatoes of red or reddish varieties which are peeled and cored and to which may be added one or more of the following optional ingredients:

(a) The liquid draining from such tomatoes during or after peeling and coring.

(b) The liquid strained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof.

(c) The liquid strained from mature tomatoes of such varieties.

(d) Purified calcium chloride, calcium sulfate, calcium citrate, monocalcium phosphate, or any two or more of the calcium salts, in a quantity reasonably necessary to firm the tomatoes, but in no case such that the amount of the calcium contained in such salts is more than 0.026 percent of the weight of the finished canned tomatoes.

It may be seasoned with one or more of the optional ingredients:

(e) Salt.

(f) Spices.

(g) Flavoring.

It is sealed in a container and so processed by heat as to prevent spoilage.

(2) (a) When optional ingredient specified in subsection (1) (b) of this section is present, the label shall bear the statement "With Added Strained Residual Tomato Material from Preparation for Canning." When one or more of the optional ingredients specified in subsection (1) (d) of this section is present the label shall bear the statement "Trace of _____ Added" or "With Added Trace of _____," the blank being filled in with the words "Calcium Salt" or "Calcium Salts" as the case may be or with the name or names of the particular calcium salt or salts added.

(b) When optional ingredient specified in subsection (1) (f) or (g) of this section is present, the label shall bear the statement or statements "Spice Added" or "With Added Spice," "Flavoring Added" or "With Added Flavoring" as the case may be. If two or more of optional ingredients specified in subsection (1) (b), (c), (f) and (g) of this section are present, such statements may be combined, as for example "With Added Strained Tomatoes, Residual Tomato Material from Preparation for Canning, Spice and Flavoring." In lieu of the word "Spice" or "Flavoring" in such statement or statements, the common or usual name of such flavoring or spice may be used.

(c) When the optional ingredient salt is used it shall be named on the label.

(3) Wherever the name "Tomatoes" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statement or statements herein specified showing the optional ingredients present shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that this requirement shall not apply to the optional ingredient salt.

Ag 60.96 Canned tomatoes; substandard quality. (1) The standard of quality for canned tomatoes is as follows:

(a) The drained weight, as determined by the method prescribed in subsection (2) (a) of this section, is not less than 50% of the

weight of water required to fill the container, as determined by the general method for water capacity of containers prescribed in section Ag 50.05 (1);

(b) The strength and redness of color as determined by the method prescribed in subsection (2) (b) of this section, is not less than that of the blended color of any combination of the color discs described in such method in which one-third of the area of disc 1, and not more than one-third of the area of disc 2, is exposed;

(c) Peel, per pound of canned tomatoes in the container, covers an area of not more than 1 square inch; and

(d) Blemishes, per pound of canned tomatoes in the container, cover an area of not more than one-fourth square inch.

(2) Canned tomatoes shall be tested by the following method to determine whether or not they meet the requirements of subsection (1) (a) and (b) of this section:

(a) Remove lid from container, but in the case of a container with lid attached by double seam, do not remove or alter the height of the double seam. Tilt the opened container so as to distribute the contents over the meshes of a circular sieve which has previously been weighed. The diameter of the sieve used is 8 inches if the quantity of the contents of the container is less than 3 pounds, or 12 inches if such quantity is 3 pounds or more. The meshes of such sieve are made by so weaving wire of 0.054-inch diameter as to form square openings 0.446 inch by 0.446 inch. Without shifting the tomatoes, so incline the sieve as to facilitate drainage of the liquid. Two minutes from the time drainage begins, weigh the sieve and drained tomatoes. The weight so found, less the weight of the sieve, shall be considered to be the drained weight.

(b) Remove from the sieve the drained tomatoes obtained in paragraph (a) of this subsection. Cut out and segregate successively those portions of least redness until 50 percent of the drained weight, as determined under paragraph (a) of this subsection, has been so segregated. Comminute the segregated portions to a uniform mixture without removing or breaking the seeds. Fill the mixture into a black container to a depth of at least 1 inch. Free the mixture from air bubbles, and skim off or press below the surface all visible seeds. Compare the color of the mixture, in full diffused daylight or its equivalent, with the blended color of combinations of the following concentric Munsell color discs of equal diameter, or the color equivalents of such discs:

1. Red—Munsell 5 R 2.6/13 (glossy finish).
2. Yellow—Munsell 2.5 YR 5/12 (glossy finish).
3. Black—Munsell N 1/ (glossy finish).
4. Grey—Munsell N 4 (mat finish).

(3) If the quality of canned tomatoes falls below the standard prescribed in subsection (1) of this section, the label shall bear the general statement of substandard quality specified in section Ag 50.10 (1) in the manner and form therein specified; but in lieu of such general statement of substandard quality, the label may bear the alternative statement "Below Standard in quality _____;" the blank to be filled in with the words specified after the corresponding number of each paragraph of subsection (1) of this section which such canned tomatoes fail to meet, as follows: (a) "Excessively Broken Up;" (b) "Poor Color;" (c) "Excessive Peel;" (d) "Excessive Blemishes". If such canned tomatoes fail to meet both (c)

and (d) the words "Excessive Peel and Blemishes" may be used instead of the words specified after the corresponding numbers of such clauses. Such alternative statement shall immediately and conspicuously precede or follow, without intervening written, printed, or graphic matter, the name "Tomatoes" and any statements required or authorized to appear with such name by section Ag 60.95 (2).

Ag 60.97 Canned tomatoes, fill and substandard fill. (1) The standard of fill of container for canned tomatoes is a fill of not less than 90% of the total capacity of the container, as determined by the general method for fill of containers prescribed in section Ag 50.05 (2).

(2) If canned tomatoes fall below the standard of fill of container prescribed in subsection (1) of this section, the label shall bear the general statement of substandard fill specified in section Ag 50.10 (2), in the manner and form therein specified.

Ag 60.98 Standards of technical organizations. Copies of the book "Official Methods of Analysis of the Association of Official Agricultural Chemists", which is cited by reference in this chapter, are on file in the offices of the state department of agriculture, secretary of state and revisor of statutes. The book may be obtained from the Association of Official Agricultural Chemists, Inc., Box 540, Benjamin Franklin Station, Washington, D. C.